



## Higher Education Cooperation with the African Institute for Mathematical Sciences (AIMS) in Ghana (2023-2027)

### 1. Programme objectives

The German Academic Exchange Service (Deutscher Akademischer Austauschdienst – DAAD) finances the ‘Higher Education Cooperation with the African Institute for Mathematical Sciences (AIMS)’ programme (<https://www.aims.edu.gh>) with funding provided by the Federal Ministry of Education and Research (BMBF).

Through the Alexander von Humboldt Foundation (AvH) and the DAAD, the BMBF has been providing support for the AIMS Centres since 2012. The AvH has been realising this by setting up research professorships at the AIMS Centres. The DAAD supports the AIMS Centres and professorships by promoting cooperation with German higher education institutions. Funding for such cooperations has already been provided to the AIMS Centres in South Africa, Rwanda, Cameroon and Senegal.

For the AIMS Centre Ghana, the DAAD provides funding for one higher education cooperation per professorship.

The research chair will be held by Dr Nick Monk (contact: [nick@aims.edu.gh](mailto:nick@aims.edu.gh)). The higher education cooperation should focus on at least one of the following research topics:

- 1) Mathematical modelling of cellular decision-making
- 2) Mathematical modelling of pattern formation in developmental biology
- 3) Information processing in cellular signalling

The programme is to make a long-term contribution (impact) to economic and social development in the partner countries and it helps higher education institutions and institutes to realise their international potential. Additional objectives are to strengthen higher education and research in the field of mathematics in the partner countries in the medium term and to increase visibility of the mathematical sciences. The programme is also designed to contribute to internationalisation of the partner institutes and to the establishment of steady cooperation structures between the partners (and the business sphere).

The following programme objectives (outcomes) are derived from these impacts:

Programme objective 1 (outcome 1): Graduates and junior scientists are well-prepared for a profession that requires mathematical skills (capacity development).

Programme objective 2 (outcome 2): Researchers have gained international research experience.

Programme objective 3 (outcome 3): Research results have been published and the general public has been informed about the programme.

Programme objective 4 (outcome 4): Teaching at the partner institutions has been expanded and internationalised.

Programme objective 5 (outcome 5): Institutionalised networks have been established among the cooperation partners (and the business sphere where applicable).

These programme objectives should be achieved by means of the following direct results (outputs) of measures/activities:

- PhD and postdoc scholarship holders were trained and supervised at the research chair.
- Graduates and junior scientists have received further specialised and methodological training in mathematics and its applications.
- Joint research projects in mathematics and its applications have taken place.
- Research results were generated and publicised in the context of the project.
- Teaching at the partner institutions has been promoted.
- Individual contact among the cooperation partners (and the business sphere where applicable) has been newly established or consolidated.

The focus areas defined can vary from project to project. A project does not necessarily need to address all programme objectives. Projects are also permitted room for manoeuvre in wording their project goals and in their strategies for achieving them. However, the project goals must be consistent with the programme objectives. The higher education institutions are asked to develop their projects based on the programme's impact model and programme indicators, thus enabling them to formulate measurable project goals and associated indicators. These must be outlined in the application and in the project planning overview, and the project goals must be consistent with the programme objectives (see **Attachment 1** 'Guide to Results-oriented Monitoring' with instructions for results-oriented project planning, the impact model and the catalogue of indicators).

## 2. Measures/activities eligible for funding

Measures/activities eligible for funding include:

- Awarding of at least two **PhD scholarships** (scholarship period of usually 3 years with the option for a one-year extension)

The **PhD scholarship holders (doctoral candidates)** must be enrolled at local partner universities of the AIMS Centres.

The research chair holder at the AIMS Centre Ghana is in charge of academic supervision.

In the scholarship period, the doctoral candidates can perform research stays of up to five months per year, provided that supervision by professors at the German partner institutions can be arranged.

- Awarding of at least two **postdoc scholarships** (scholarship period of usually 2 years)

The research chair holder at the AIMS Centre Ghana is in charge of academic supervision.

In the scholarship period, the doctoral candidates can perform research stays of up to five months per year, provided that supervision by professors at the German partner institutions can be arranged.

- Awarding of **scholarships for study and research stays** at the respective partner institution or other AIMS Centres, including between different AIMS Centres (South-South exchange) (at least 1 and no more than 5 months) for **students, doctoral candidates, academics holding a PhD, postdocs and lecturers.**
- **Teaching stints of doctoral candidates, academics holding a PhD, postdocs, lecturers and senior researchers** at the respective partner institutions or other AIMS Centres, including between different AIMS Centres (South-South exchange) (up to 1 month)
- Participation in/holding of events, specialist conferences and workshops (e.g. summer schools, discipline-specific qualification measures, soft skills training, networking and work meetings, coordination meetings, excursions)
- Project marketing
- Development and use of digital formats (e.g. cross-locational digital teaching/learning scenarios, virtual events, new formats for exchanging information on the cooperation level and in the context of public relations work)

Note:

The eligible measures indicated above must be planned and realised in close coordination with the German research chair holder.

### 3. Eligible grant expenditure

#### See Annex 3

### 4. Forwarding

Forwarding of the project funding grant (fully or in part) is possible, if it is necessary for realising the grant purpose.

The expenditure items that are to be forwarded must be marked accordingly in the financing plan that is part of the application for project funding submitted to the DAAD.

If the specific details of forwarding are not known yet at the time the application for project funding is submitted (before a contract is concluded), expenditure that may be forwarded can be designated as the institution's own

expenditure in the financing plan for the time being. In the event that specific plans to forward funding emerge after the contract has been closed, the grant recipient must seek approval from the DAAD by means of an amendment agreement (adjustment of the project description and financing plan).

Any forwarding of funds must take place based on a forwarding agreement.

Evidence of use from the forwarding recipient must be submitted to the DAAD along with the related audit certificate.

#### 5. Type of financing

Funding takes the form of full financing.

#### 6. Funding period

The funding period begins at the earliest on 1. January 2023 and ends at the latest on 31 December 2027.

#### 7. Grant amount

The usual maximum grant amount that can be applied for is EUR 779,000, split between the budget years as follows:

2023: EUR 171,000 (around EUR 77,000 thereof for scholarships)  
2024: EUR 171,000 (around EUR 77,000 thereof for scholarships)  
2025: EUR 171,000 (around EUR 77,000 thereof for scholarships)  
2026: EUR 171,000 (around EUR 77,000 thereof for scholarships)  
2027: EUR 95,000.

#### 8. Disciplines

The programme is open for the discipline of mathematics and its applications.

#### 9. Target groups

Master's students, doctoral candidates, postdocs and senior researchers

#### 10. Eligible applicants

Eligible applicants are officially recognised German higher education state institutions and/or non-university research institutions based in Germany which are recognised as non-profit organisations and conduct their own research.

#### 11. Application

The application for project funding must be submitted in full and on time exclusively via the DAAD portal ([www.mydaad.de](http://www.mydaad.de)).

##### Application documents

- Project application (in the DAAD portal)
- Financing plan (in the DAAD portal)
- Project description, see **form template** (attachment type: Project description)
- Project planning summary, see **form template** (attachment type: Project description)
- Project description and financing plan of the forwarding recipient(s) (attachment type: Supplementary financial information)

- Approval of the application signed by the research chair holder at the AIMS Centre, see template (attachment type: Programme-specific attachment)

The application documents must be named according to the guidelines and submitted under the specified attachment type by the application deadline.

No changes to the financing plan, project description or any amended documents or documents submitted later are accepted after the application deadline. Incomplete applications will be excluded from the selection procedure.

## 12. Application deadline

The application deadline is 31 October 2022.

## 13. Selection procedure

### **Selection of applications for project funding**

The DAAD will make its funding decision based on evaluation of the applications by a selection committee.

#### Selection criteria

- (1) Relationship of the project goals to the programme objectives (as per the impact model) and results-oriented planning using indicators that meet the SMART criteria (see Guide to Results-oriented Monitoring) (20%)
- (2) Necessity of expenditure for realising the measures (20%)
- (3) Scientific quality of the endeavour (40%)
- (4) Feasibility of the endeavour (feasibility of measures) (20%)

## 14. Scholarship selection procedure

### **Selection procedure for scholarships**

A selection committee of three or more individuals appointed by the grant recipient will decide who the scholarships are awarded to. The selection procedure must be described in the project description.

- Availability of the scholarships shall be publicised (e.g. on the AIMS Centres' website and the external network of the DAAD).
- The selection committee must have at least the following members:
  - Qualified academic from the relevant field from the grant recipient
  - Research chair holder at the AIMS Centre Ghana
- Selection criteria
  - Specialist/academic competence and performance
  - Personal aptitude
  - Quality and feasibility of the research endeavour
- Awarding of the scholarship
  - By means of a scholarship contract (indicating the DAAD and the funding body and specific information about the scholarship benefits, the scholarship amount and payment arrangements)



### 15. Attachments

1. Guide to RoM (including impact model and catalogue of indicators)
2. Fee table
3. Eligible grant expenditure

### 16. Form templates

- Project description
- Project planning summary
- Approval from the research chair holder
- Substantive report

### 17. Important Information

- Mobility information for those with a disability or chronic illness
- Guideline for digital teaching and learning opportunities

### 18. Contact

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